



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Patent Application of: ORELL et al.

Serial No.: 10/035,321

Filed: January 4, 2002

For: STREAMING AND MANAGING COMPLEX MEDIA CONTENT ON
WEB SERVERS

Group Art Unit: 2144

Examiner: Greg C. Bengzon

RULE 132 DECLARATION OF ZOHAR SIVAN, DROR ORELL, AND

HAGAI KRUPNIK

We, the undersigned, Zohar Sivan, Dror Orell and Hagai Krupnik, hereby declare as follows:

1. We are the Applicants in U.S. Patent Application No. 10/035,321 (hereinafter "the Application"). Although Hagai Krupnik was inadvertently omitted from the list of inventors when the Application was filed, we have now submitted the documents necessary to add his name as an inventor.

2. In an Office Action dated April 15, 2005, claims 1-32 in the aforesaid Application were rejected under 35 U.S.C. 102(e) over U.S. Patent 6,848,004, to Chang et al. (hereinafter "the Chang Patent"). In making this rejection, the Examiner cited material in cols. 8-9 of the Chang Patent regarding the use of a servlet program in extracting and delivering content of HotMedia files to a client station. The Chang Patent does not claim the use of a servlet for this purpose or any other purpose.

In Re: U.S.S.N. 10/035,321

Group Art Unit 2144

Rule 132 Declaration of Sivan, Orell and Krupnik, cont'd

3. Prior to July, 1999, we conceived and began development of the invention claimed in the Application. We are the inventors of the subject matter relating to the use of servlets that was disclosed in the Chang Patent.

4. Hagai Krupnik presented our invention at a meeting held with a group at the IBM Watson Research Center, on or about July 1, 1999 (hereinafter "the Watson Group"). The Watson Group included a number of the inventors of the Chang Patent, including Chang, Kumar, Lipscomb and Zhang. Although Dror Orell participated in the reduction to practice of the present invention, he was not involved in this meeting or the subsequent interaction with the Watson Group.

5. Following the meeting we submitted a proposal for development of "HotMedia Streaming Servlet APIs" to the Watson Group. The inventors of the Chang Patent learned of the possible use of servlets in their HotMedia architecture from this meeting and proposal. Based on this proposal, the Watson Group assigned responsibility to Hagai Krupnik and Zohar Sivan for servlet design and implementation in a joint development program.

6. In support of this Declaration, the following appendices are attached hereto:

- Appendix A contains the proposal we submitted to the Watson Group. Page numbers and line numbers have been added for ease of reference.

In Re: U.S.S.N. 10/035,321

Group Art Unit 2144

Rule 132 Declaration of Sivan, Orell and Krupnik, cont'd

- Appendix B contains an e-mail message, retrieved from the IBM Lotus Notes database, that was sent by Hagai Krupnik on July 15, 1999, to members of the Watson Group regarding our proposal.
- Appendix C contains an e-mail message that Subrina Chang sent to Hagai Krupnik on July 20, 1999, acknowledging the proposal.
- Appendix D contains a further e-mail message from Subrina Chang to Hagai Krupnik on July 26, 1999, responding to specific technical points in the proposal that we submitted.
- Appendix E contains an e-mail message from Keeranoor Kumar to Hagai Krupnik, Zohar Sivan, members of the Watson Group, and others, dated July 28, 1999, setting out task responsibilities in the joint development program.

7. The following table shows the correspondence between the elements of claim 1 in the Application and information provided in our proposal (Appendix A):

| Claim 1 | Appendix A |
|---|--|
| A method for media streaming, comprising: | "This document contains a draft proposal for APIs for a servlet that will support HotMedia content streaming" (page 1, lines 4-5). |

In Re: U.S.S.N. 10/035,321

Group Art Unit 2144

Rule 132 Declaration of Sivan, Orell and Krupnik, cont'd

| Claim 1 | Appendix A |
|---|---|
| receiving a request from a client to a server via a network in accordance with a Hypertext Transfer Protocol (HTTP) to stream a media file of a given type; | "The HotMedia Streaming Servlet will be a standalone module running behind/on top of a standard http server... via URL requests that will be sent from HotMedia applet to the http Server" (page 1, lines 6-8). |
| passing the request to a servlet running in conjunction with the server; | "Servlet URL calls : To retrieve mvr stream via hmServlet, the URL that will be sent from hmMaster will be of the following Syntax..." (page 2, lines 1-3 ff). |
| parsing the request using the servlet to identify elements of the media file to be transferred to the client; | "Since the servlet has to parse mvr file format it is desirable if the servlet can have a parser which is aligned with the HotMedia Player parser" (page 1, lines 34-35). Servlet actions to select elements of a media file are listed on page 3, lines 30-39. |

In Re: U.S.S.N. 10/035,321

Group Art Unit 2144

Rule 132 Declaration of Sivan, Orell and Krupnik, cont'd

| Claim 1 | Appendix A |
|---|---|
| streaming the identified elements from the server to the client as a HTTP response. | "The http response for these request will be of mime type ' application/octet-stream '" (page 2, line 37). See also code example on page 10, lines 8-11. |

8. Claim 2 depends from claim 1 and adds the limitations that parsing the request comprises determining a processing action to be applied to the elements of the media file, and streaming the identified elements comprises applying the processing action to the elements. Various different processing actions are listed in Appendix A on page 3, lines 30-39, and their implementation is described on the subsequent pages.

9. Claim 3 depends from claim 2 and adds the limitations that parsing the request comprises determining a parameter applicable to the processing action, and applying the processing action comprises processing the elements of the media file responsive to the parameter. The servlet query string given on page 3 of Appendix A includes parameter and value fields (page 3, lines 16-21). "For each action we now specify the parameters that can be used" (page 4, line 6).

10. Claim 4 depends from claim 3 and adds the limitations that determining the parameter comprises determining a limitation on a media playing capability of the client, and the processing action comprises modifying

In Re: U.S.S.N. 10/035,321

Group Art Unit 2144

Rule 132 Declaration of Sivan, Orell and Krupnik, cont'd

the identified elements in response to the limitation. Actions 7, 8 and 9 (listed on page 3, lines 36-39, of Appendix A) provide for skipping media types, fitting to available bandwidth, and limiting the stream speed, and thus can be used to modify the elements of the media file based on client capabilities (see page 6, line 28 - page 7, line 16).

11. Claim 5 depends from claim 4 and adds the limitations that determining the limitation comprises identifying a network bandwidth, and modifying the identified elements in response to the limitation comprises altering the elements responsive to the network bandwidth. This step corresponds to action number 7 (FitToBandwidth) in the list on page 3 (line 36) of Appendix A.

12. Claim 6 depends from claim 4 and adds the limitations that determining the limitation comprises determining a resource level provided by the client, and modifying the identified elements comprises selecting the identified elements responsive to the resource level. This step corresponds to action number 8 (limitStreamSpeed) in the list on page 3 (line 37) of Appendix A, which may be used to accommodate resource limitations of the client (page 7, lines 4-10).

13. Claim 7 depends from claim 2 and adds the limitation that applying the processing action comprises transcoding at least one of the elements of the media file into a desired media format. Zocming the image (page 3, line

In Re: U.S.S.N. 10/035,321

Group Art Unit 2144

Rule 132 Declaration of Sivan, Orell and Krupnik, cont'd

38, and page 7, lines 10-35) is one example of image transcoding performed by the servlet that is described in Appendix A.

14. Claim 8 depends from claim 1 and adds the limitations that receiving the request comprises receiving a request for a certain portion of the media file, and parsing the request comprises selecting the elements of the media file to be transferred responsive to the request. The query string specified on page 3 of Appendix A permits the client to request that the servlet provide certain bytes, time, tracks, or media types from the media file (lines 30-34), i.e., a certain portion of the media file. Implementation of these selections by the servlet is described on pages 4 and 5.

15. Claim 9 depends from claim 8 and adds the limitations that the elements of the media file comprise an ordered sequence of frames, and selecting the elements comprises selecting a segment within the sequence. Video media inherently comprise an ordered sequence of frames. Selecting start and end times (page 4, lines 23-41, in Appendix A) causes the servlet to provide a segment of this sequence to the client.

16. Claim 10 depends from claim 8 and adds the limitations that the elements of the media file comprise a plurality of media tracks temporally juxtaposed in parallel, and selecting the elements comprises selecting one or more of the tracks. Selecting tracks is described in Appendix A on page 5, lines 11-24.

In Re: U.S.S.N. 10/035,321

Group Art Unit 2144

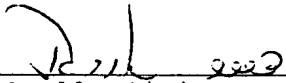
Rule 132 Declaration of Sivan, Orell and Krupnik, cont'd

17. Similar correspondences may be pointed out between the apparatus and software product claims in the Application and the subject matter of Appendix A.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and conjecture are thought to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application of any patent issued thereon.

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In Re: U.S.S.N. 10/035,321

Group Art Unit 2144

Rule 132 Declaration of Sivan, Orell and Krupnik, cont'd

17. Similar correspondences may be pointed out between the apparatus and software product claims in the Application and the subject matter of Appendix A.

We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and conjecture are thought to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application of any patent issued thereon.



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